



Clinical Update:

Managing Coronavirus Disease

2019 in Skilled Nursing Facilities

March 6, 2020

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Disclosures

There is no commercial support for today's webinar

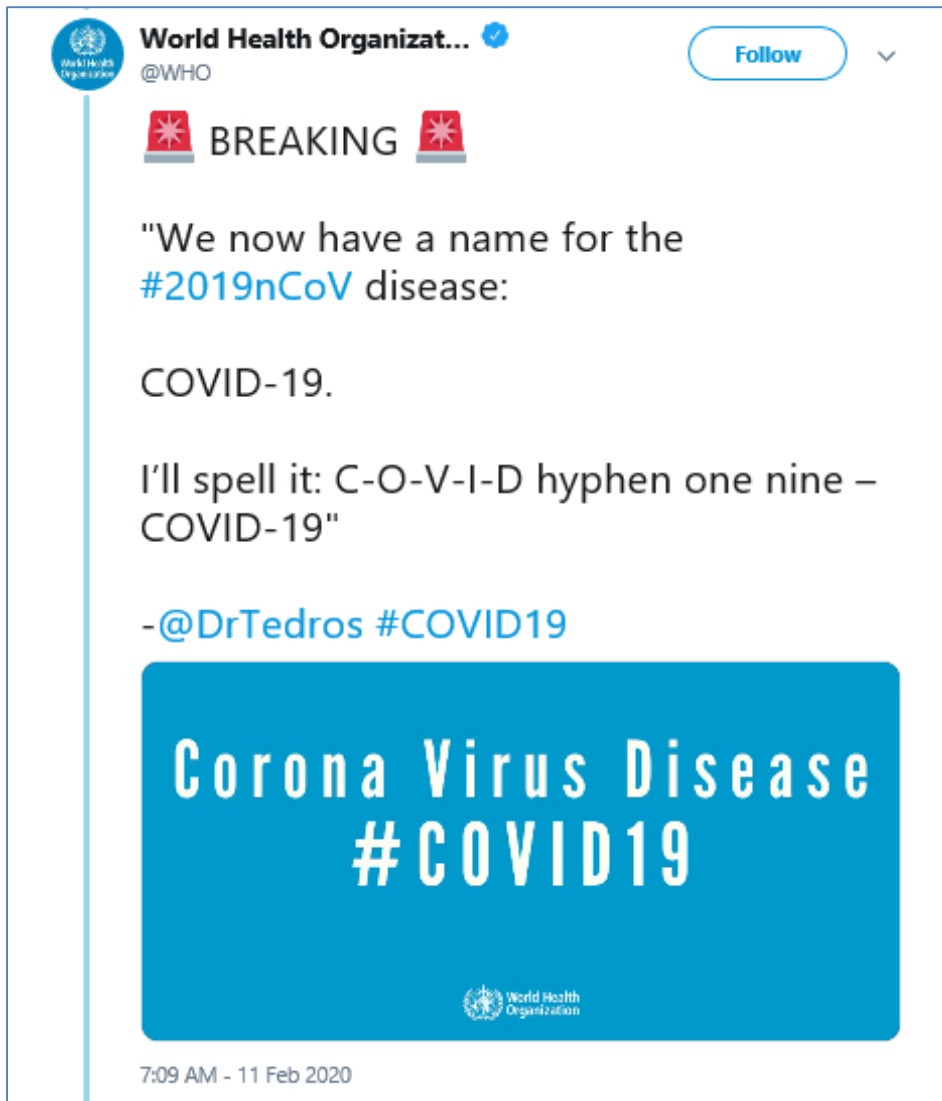
Neither the speakers nor planners for today's webinar have disclosed any financial interests related to the content of the meeting

DISCLAIMER

- This is a rapidly evolving situation so the information being presented is current as of today (3/6/20) so we highly recommend that if you have questions after today you utilize the resources that we will review at the end of this presentation.

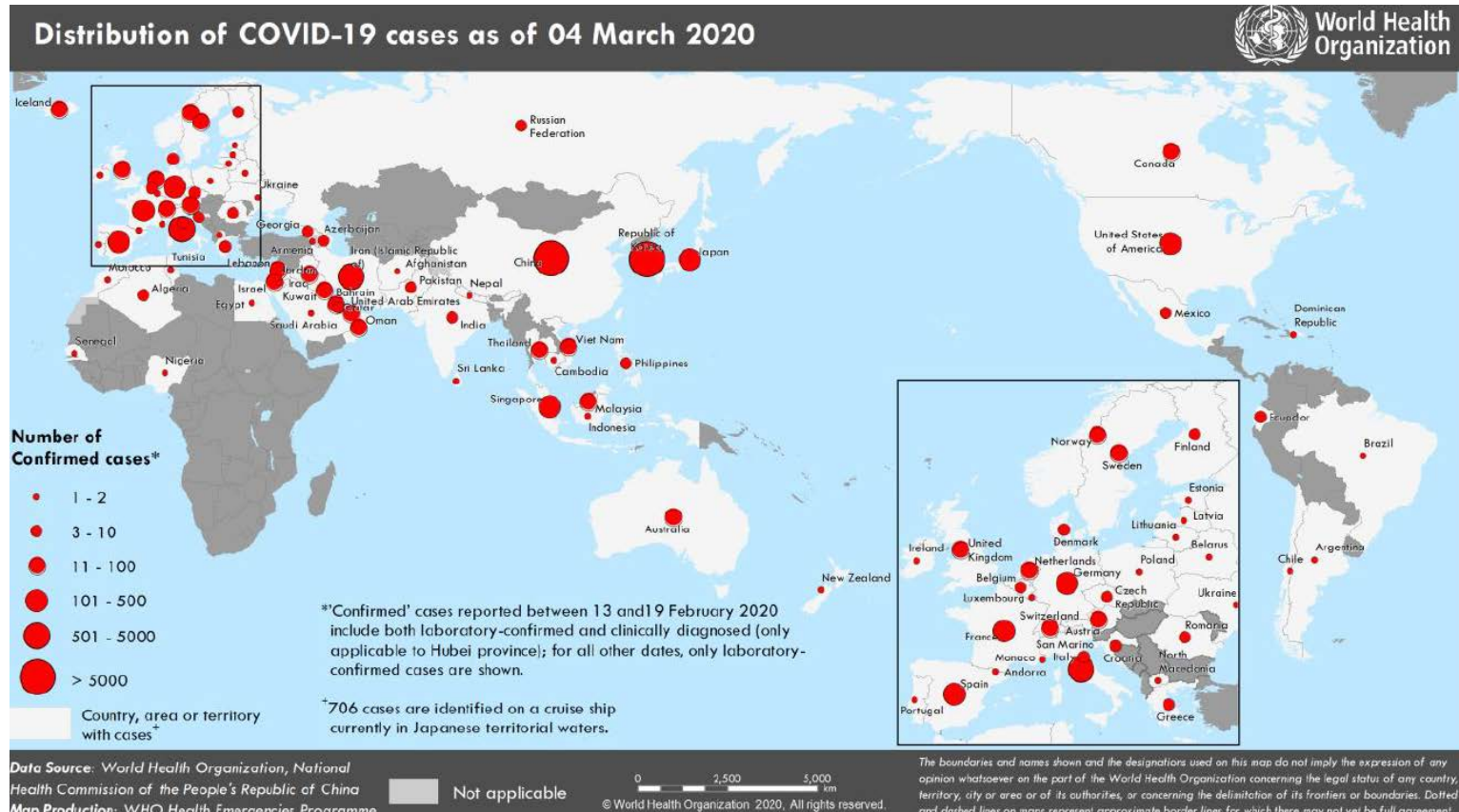
Overview of Presentation

- Current COVID-19 situation update
- Epidemiology and clinical characteristics
- Public health prevention efforts
- Evaluation of suspected COVID-19
- Pandemic surge planning



- Formerly referred to as 2019 novel Coronavirus (2019-nCoV)
- COVID-19 = disease
- SARS-CoV-2 = virus causing COVID-19

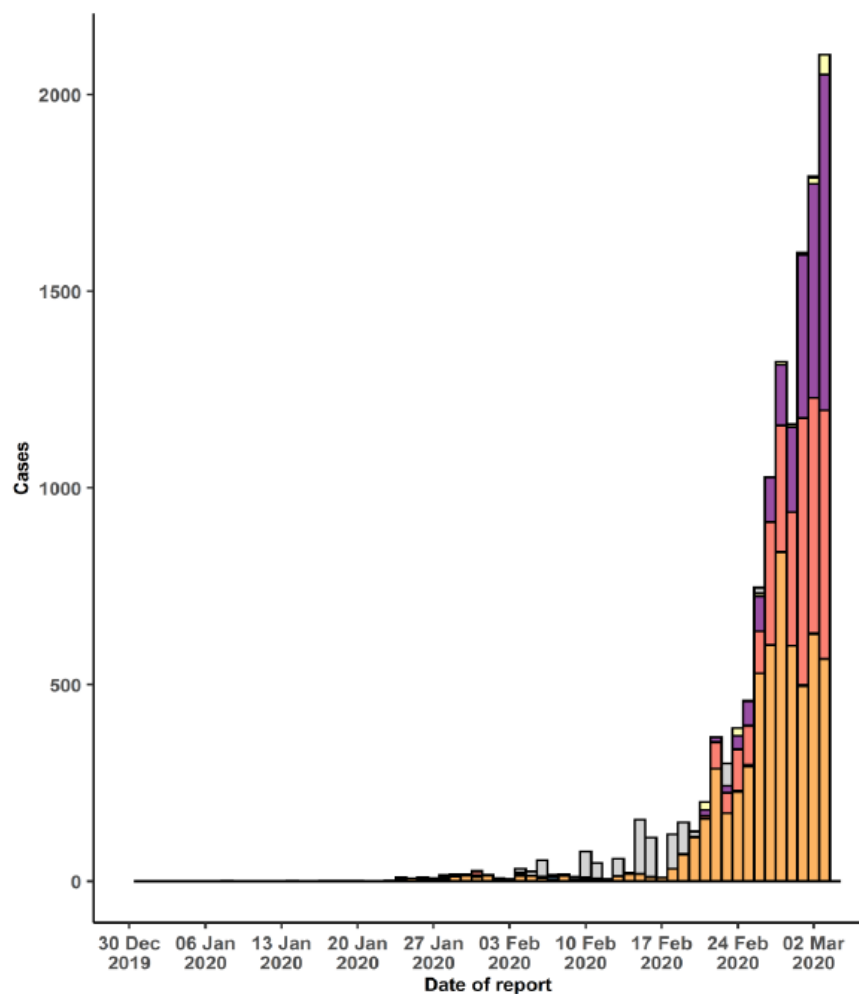
Coronavirus COVID-19 Global Cases by WHO



- 93,090 total cases
 - 80,422 confirmed cases in China
 - 12,668 cases outside China

COVID-19 spread outside China

Country	Confirmed Cases
South Korea	5,328
Italy	2,502
Iran	2,336
Japan	284
France	212
US	210
Germany	196



LA County

- First case in LAC identified January 22.
- 11 cases in LAC to date.
- Clusters related to travelers (10)
- Airport screener (1)
- Additional tests pending.

California

- 53 Positive cases
 - 1 death
 - 4 community transmission
 - 9,400+ people in self-monitoring returning through LAX, SFO



Clinical presentation of COVID-19



JAMA | Original Investigation | CARING FOR THE CRITICALLY ILL PATIENT

Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus-Infected Pneumonia in Wuhan, China

Dawei Wang, MD; Bo Hu, MD; Chang Hu, MD; Fangfang Zhu, MD; Xing Liu, MD; Jing Zhang, MD; Binbin Wang, MD; Hui Xiang, MD; Zhenshun Cheng, MD; Yong Xiong, MD; Yan Zhao, MD; Yirong Li, MD; Xinghuan Wang, MD; Zhiyong Peng, MD

- Retrospective, single-center case series of 138 consecutive hospitalized patients with confirmed COVID-19 in Wuhan, China

Signs and symptoms

Fever	136 (98.6)
Fatigue	96 (69.6)
Dry cough	82 (59.4)
Anorexia	55 (39.9)
Myalgia	48 (34.8)
Dyspnea	43 (31.2)
Expectoration	37 (26.8)

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Table 1. Clinical Characteristics of the Study Patients, According to Disease Severity and the Presence or Absence of the Primary Composite End Point.*

Characteristic	All Patients (N=1099)	Disease Severity		Presence of Primary Composite End Point†	
		Nonsevere (N=926)	Severe (N=173)	Yes (N=67)	No (N=1032)
Age					
Median (IQR) — yr	47.0 (35.0–58.0)	45.0 (34.0–57.0)	52.0 (40.0–65.0)	63.0 (53.0–71.0)	46.0 (35.0–57.0)
Distribution — no./total no. (%)					
0–14 yr	9/1011 (0.9)	8/848 (0.9)	1/163 (0.6)	0	9/946 (1.0)
15–49 yr	557/1011 (55.1)				
50–64 yr	292/1011 (28.9)				
≥65 yr	153/1011 (15.1)				
Female sex — no./total no. (%)	459/1096 (41.9)				
Smoking history — no./total no. (%)					
Never smoked	927/1085 (85.4)				
Former smoker	21/1085 (1.9)				
Current smoker	137/1085 (12.6)				
Exposure to source of transmission within past 14 days — no./total no.					
Living in Wuhan	483/1099 (43.9)				
Contact with wildlife	13/687 (1.9)				
Recently visited Wuhan‡	193/616 (31.3)				
Had contact with Wuhan residents‡	442/611 (72.3)				
Median incubation period (IQR) — days§	4.0 (2.0–7.0)				
Fever on admission					
Patients — no./total no. (%)	473/1081 (43.8)				
Median temperature (IQR) — °C	37.3 (36.7–38.0)				
Distribution of temperature — no./total no. (%)					
<37.5°C	608/1081 (56.2)				
37.5–38.0°C	238/1081 (22.0)				
38.1–39.0°C	197/1081 (18.2)	160/910 (17.6)	37/171 (21.6)	11/66 (16.7)	186/1015 (18.3)
>39.0°C	38/1081 (3.5)	30/910 (3.3)	8/171 (4.7)	3/66 (4.5)	35/1015 (3.4)
Fever during hospitalization					
Patients — no./total no. (%)	975/1099 (88.7)	816/926 (88.1)	159/173 (91.9)	59/67 (88.1)	916/1032 (88.8)
Median highest temperature (IQR) — °C	38.3 (37.8–38.9)	38.3 (37.8–38.9)	38.5 (38.0–39.0)	38.5 (38.0–39.0)	38.3 (37.8–38.9)
<37.5°C	92/926 (9.9)	79/774 (10.2)	13/152 (8.6)	3/54 (5.6)	89/872 (10.2)
37.5–38.0°C	286/926 (30.9)	251/774 (32.4)	35/152 (23.0)	20/54 (37.0)	266/872 (30.5)
38.1–39.0°C	434/926 (46.9)	356/774 (46.0)	78/152 (51.3)	21/54 (38.9)	413/872 (47.4)
>39.0°C	114/926 (12.3)	88/774 (11.4)	26/152 (17.1)	10/54 (18.5)	104/872 (11.9)

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

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Natural History of 138 Hospitalized Patients with COVID-19 in Wuhan, China

- Median time from symptom onset to:
 - Dyspnea = 5 days (IQR: 1-10 days)
 - Hospitalization = 7 days
 - ARDS = 8 days
- Clinical Outcomes
 - 26% required ICU care
 - 16% developed ARDS
 - 4% died
- Median length of hospital stay: 10 days

Epidemiologic Characteristics of COVID-19 Cases in China (as of February 11, 2020)

- 72,314 people diagnosed with COVID-19
- 44,672 people with confirmed COVID-19
- Clinical characteristics/outcomes among confirmed cases
 - Majority aged 30–69 years (77.8%) and male (51.4%)
 - 81% of infections are classified as mild¹
 - 13.8% as severe²
 - 4.7% as critical³
 - 2.3% died

1. Mild included pneumonia and non-pneumonia cases

2. Severe was characterized by dyspnea, respiratory frequency ≥ 30 /minute, blood oxygen saturation $\leq 93\%$, PaO₂/FiO₂ ratio < 300 , and/or lung infiltrates $> 50\%$ within 24–48 hours

3. Critical cases were those that exhibited respiratory failure, septic shock, and/or multiple organ dysfunction/failure

Life Care Center of Kirkland, WA



- 7 deaths (11 total deaths in US)
- 50 people being monitored (108 residents, 180+ staff)
- 16 students from Lake WA Institute of Tech
- 1/3 of local firefighters were exposures and are excluded.

1. <https://lcca.com/locations/wa/kirkland/announcement>

COVID-19 Webpage

<http://publichealth.lacounty.gov/acd/nCorona2019.htm>

Acute Communicable Disease Control

Home About FAQ Comment Contact Us A-Z Index

Acute Communicable Disease Control

- ACDC Main Page
- Diseases & Conditions
 - Guidelines/Manuals
 - Reporting a Disease
 - Materials for Health Professionals
 - Los Angeles Health Alert Network (LAHAN)
 - Skilled Nursing Facilities
 - Public Health Resources
- Info for the Public (FAQ's)
 - Report a Problem
 - Health Advisories
 - Health Ed Materials
- Disease Reports and Special Studies
- Frequently Used Links

2019 Novel Coronavirus (2019-nCoV)
Information for Healthcare Providers

For suspected cases of 2019-nCoV, **immediately** call Acute Communicable Disease Control to assist with diagnosis and infection control.
(213) 240-7941 (8am-5pm Mon-Fri) - (213) 974-1234 (After Hours Emergency Operator)

Webinar with CME: Clinical Update on Coronavirus Disease 2019 2/21/20, 12pm [Website](#) [Flyer](#)

Resources for Providers

Provider Checklist
Step by step guide for identifying and managing suspect patients
[Revised 2-4-20](#)

DPH Patient Under Investigation (PUI) Form
[Revised 2-6-20](#)

Home Care Instructions
Instructions for suspect and confirmed cases and their families or caregivers
[English](#)
[Chinese-Simplified](#)
[Chinese-Traditional](#)

Personal Protective Equipment for 2019-nCoV
[Revised 2-18-20](#)
[Spanish](#)

Lab Test Request Forms
Prefilled for nCoV testing
[Nasopharyngeal swab test](#)
[All specimens \(except NP swab\) test](#)

Travel Alert Posters
[English](#) [Spanish](#) [Cambodian](#)
[Chinese-Simplified](#)
[Chinese-Traditional](#)
[Combined \(Eng/Chinese\)](#)

Contact Information

County of Los Angeles
Department of Public Health
Acute Communicable Disease Control
313 N. Figueroa Street, #212
Los Angeles, CA 90012
Phone: (213) 240-7941
Fax: (213) 482-4856
Email: acdc2@ph.lacounty.gov

Public Health Programs



Infection Prevention for COVID-19



Overriding Principles in Caring for COVID-19 Safely

- Care for patients in a safe, culturally sensitive environment.
- Minimize risk of HCW exposure to COVID-19.
- Cause as little disruption to normal functioning as possible.
- Plan
- Prepare
- Practice
- PPE
- CDC LTCF Guidance:
<https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/prevent-spread-in-long-term-care-facilities.html>
- Infection Prevention:
<https://www.cdc.gov/coronavirus/2019-nCoV/hcp/infection-control.html>
- Infection Prevention FAQs:
<https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-prevention-control-faq.html>

Transmission

- Droplet & Contact transmission
 - HCW hands
 - Fomites
 - Environment
- Sick HCW, visitors



1. <https://phil.cdc.gov/Details.aspx?pid=11162>

**GOAL: Mask patient &
staff within 2 minutes.**



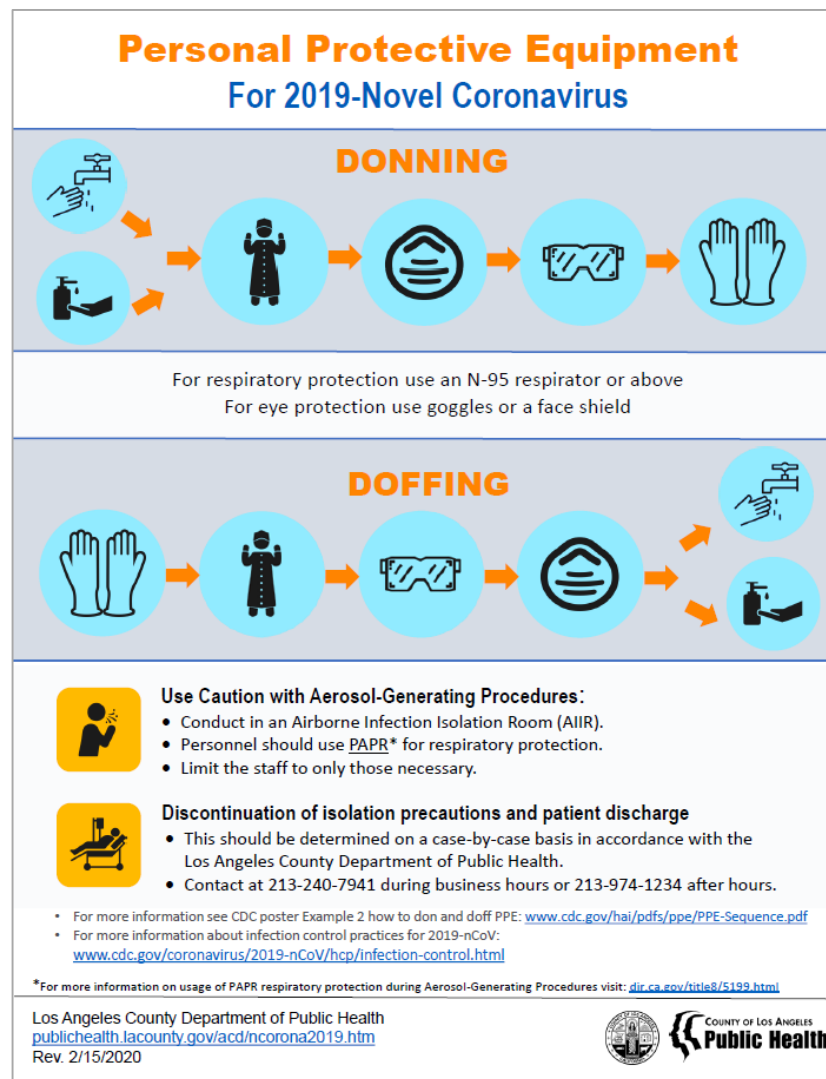
Provider mask/
N95 Respirator

Patient mask



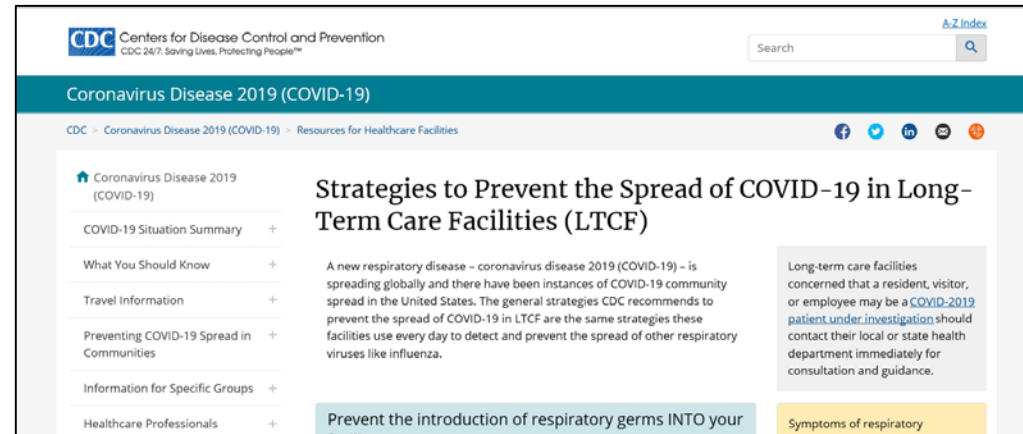
Don Personal Protective Equipment (PPE)

- **STANDARD**
- **CONTACT**
- **AIRBORNE**
 - Gown
 - N95 mask
 - Eye protection
 - Gloves
- **Negative Pressure Isolation Room (NPIR)**
 - Ideally for all
 - For aerosol-generating procedures



Key points

- Read Guidance
 - CDC
 - LACDPH: coming soon!
- Infection Prevention
 - Hand Hygiene
 - PPE
 - Environmental Cleaning
- Staff & visitor monitoring
 - Screen staff for fever, cough
 - Restrict visitors as much as possible
- Monitor residents for symptoms



Common infection prevention themes from on-site assessments at SNFs



- Limited administrative support, staff time and resources for infection prevention and control activities

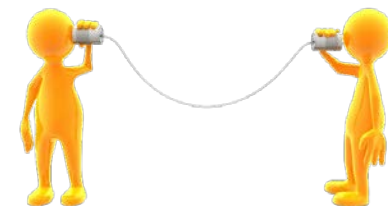
- Environmental contamination, including improperly cleaned shared equipment serving as a reservoir for pathogens



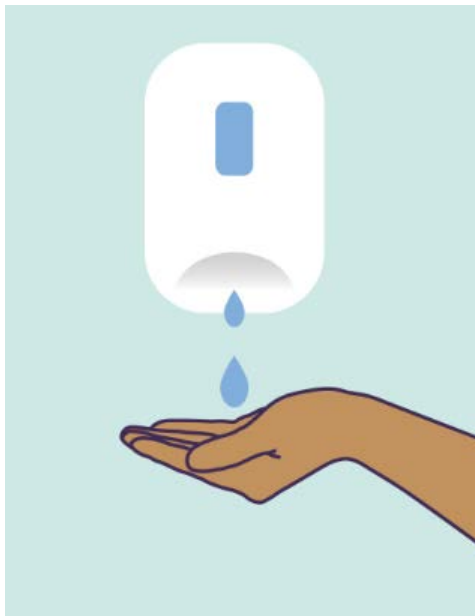
- Challenges with staff turnover and need for continuous training to sustain practices



- Gaps in adherence to hand hygiene and use of Contact Precautions
- Inadequate communication of MDRO history or risk factors during facility transfers



COVID-19 Prevention Strategies: Back to Basics



Hand Hygiene



**Personal Protective
Equipment & Precautions**



**Environmental
Cleaning &
Disinfection**

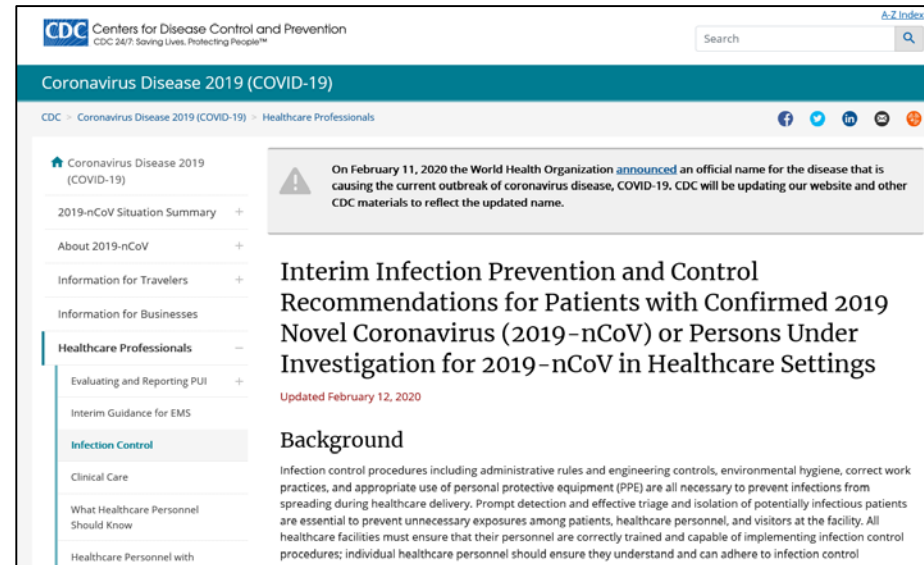
Common pitfall: Inadequate Access to Hand Hygiene Supplies

- Evaluate current availability of sinks and ABHR in high acuity units
- Place ABHR dispensers in patient/resident care locations
 - Inside and outside of resident rooms
 - Common areas
 - Staff work stations
 - Therapy rooms
- Develop a process and identify personnel to monitor and restock HH supplies



Environmental Cleaning for COVID-19

- Dedicated medical equipment.
- Clean mobile equipment with EPA-registered healthcare disinfectant (watch wet contact time).
- Clean room with EPA-registered healthcare disinfectant.
- Laundry, food service utensils, medical waste management in accordance with routine procedures.





Room Placement Considerations

- Patient with suspected or confirmed COVID-19 should be placed into private room with door closed.
- Healthcare workers should don PPE as recommended.



Prevention COVID-19 Outbreaks in SNFs



INFECTION CONTROL!

-
- | | | |
|---------------------|--|---------------------|
| • Infection Control | • Infection Control | • Infection Control |
| • Infection Control | • Infection Control | • Infection Control |
| • Infection Control | • Infection Control | • Infection Control |
| • Infection Control | <div> Hand hygiene
 PPE
 Environmental cleaning </div> | • Infection Control |
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Limit or Exclude visitors

- In the setting of community spread, visitors may have mild cases of COVID-19.



- Consider providing masks & reinforce hand hygiene to visitors if they must come into the facility.
- Develop electronic communication strategies to limit visitors.

Staff/HCW Monitoring

- All staff must self-monitor for symptoms of COVID-19.
- Do not come to work if sick with symptoms of COVID-19!
- Consider screening for all HCW daily prior to starting work.
- If mild respiratory symptoms, provide with mask and discard when saturated.
- Consider masking all HCW while caring for patients and change mask and discard when saturated.

Ventilated patients

- Open suctioning, extubation, intubation, etc. are considered high-risk aerosol generating procedures and require the use of N95 masks for COVID-19.

Identification & Isolation of COVID-19 among Residents

- Look for new onset of fever + cough, shortness of breath.
- Isolate these patients and follow PPE guidance.
- Transfer to hospital if ill via EMS (with notification of possible COVID-19).
- Consider testing locally if not ill using LabCorp or Quest (Monday).
- Keep transmission-based precautions until test back.

County Emerging Infectious Disease Plan

- http://file.lacounty.gov/SDSInter/dhs/1057811_EIDHealthSystemAnnexConOps-July2018Final.pdf



**Los Angeles County Medical and Health
Operational Area Coordination Program**

**Emerging Infectious Disease
Healthcare System Annex
Concept of Operations (CONOPS)**

July 2018

Getting ready...

- PPE
 - Masks/gowns/gloves
 - If unable to get supplies, review LAHAN 3/4/2020
- Review surge plan
- Review CDC guidance
- Look for LACDPH guidance
- Know who to call



LAC DPH Health Advisory:
COVID-19 Guidance-Optimizing N95
Supplies and Managing Mild Illness
March 4, 2020



*This message is intended for all health care providers practicing in Los Angeles County.
Please distribute as appropriate.*

Reporting

Patients not meeting COVID-19 evaluation criteria do not need to be reported.

Los Angeles County DPH Acute Communicable Disease Control:

- Weekdays 8:30am–5pm: call 213-240-7941.
- After-hours: call 213-974-1234 and ask for the physician on call.

Long Beach Health and Human Services:

- Weekdays 8am-5pm: call 562-570-4302.
- After hours: call the Duty Officer at 562-500-5537.

Pasadena Public Health Department:

- Weekdays 8am-5pm (closed every other Friday): call 626-744-6089.
- After hours: call 626-744-6043.



Questions

